

PATENT
Docket GE131915

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Applicant:
E.M. Even et al

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) *Art Unit:* 1725
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Application No.: 10/651,678
Confirmation No: 9311

)
) *Examiner:* Heinrich, S.
)

Filed: 08/29/2003

Title: **LASER SHOCK PEENING TARGET**

Third Response

Mail Stop Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the third office action dated as mailed on 10/11/05, and having a period of response extending through and including 01/11/06, Applicants request reconsideration.

Yet again, Applicants note the substantial breadth of interpretation of Applicants' claims being proffered by the examiner under the new rejections of record, which correspondingly enlarges claim scope in later infringement analysis of the file wrapper.

CERTIFICATE OF TRANSMISSION (37 CFR 1.8a and MPEP 512)

I hereby certify that this 26-PAGE correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office at Fax No. 571-273-8300 on the transmission date indicated below.

FRANCIS L. CONTE

(Name of person transmitting paper)


(Signature of person transmitting paper)

16 December 2005

(Date)

PATENT
Docket GE131915

However, the examiner has yet again failed to afford due weight to specific features and cooperation of features which distinguish over the applied art; and the examiner has failed to answer the substance of the traverse of the previous rejections, now withdrawn by the examiner on the merits.

Applicants traverse the omnibus rejection of claims 1-6, 11-17, and 19-21 under Section 103(a) over AAPA, Holderegger et al, Ferrigno et al, and Steinwall.

For the contention of AAPA, the examiner has referenced Applicants' own "Background of the Invention" section, but without any specificity therein. Which part of that section is the examiner intending to use, and how?

The examiner is now also trying to apply the "five photos" in the IDS as part of the AAPA, but has yet again failed to explain which parts thereof are being used in the rejection.

And, in conjunction with these AAPA contentions, the examiner is also attempting to combine therewith three additional references for a combination of FOUR references, which four references are fundamentally different from each other, and have no legal or logical nexus with which to base an obviousness rejection under the stringent requirements of Section 103.

Most importantly, Rule 104 requires thoroughness of examination, completeness in the office action, and the citation of the best references.

Patent Rule 104 is reproduced in part as follows:

(a) Examiner's action.

(1) On taking up an application for examination or a patent in a reexamination proceeding, the examiner shall make a thorough study thereof and shall make a thorough investigation of the available prior art relating to the subject matter of the claimed invention. The examination shall be complete with respect both to compliance of the application or patent under reexamination with the applicable statutes and rules and

PATENT
Docket GE131915

to the patentability of the invention as claimed, as well as with respect to matters of form, unless otherwise indicated.

(b) Completeness of examiner's action. The examiner's action will be complete as to all matters
....

(c) Rejection of claims.

(1) If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected.

(2) In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

The examiner has no doubt met the requirements of Rule 104, yet was nevertheless unsuccessful in fabricating even a prima facie rejection of the original claims.

Now, the examiner attempts additional rejections in clearly hindsight application of irrelevant references, amounting to nothing more than examiner conjecture without support by any identified evidence, and without complying with the stringent requirements of the MPEP, in an obvious-to-try expedient which not even one skilled in the art could fashion.

If the experienced examiner is not able to present a cogent and definitive basis to reject the claims as being obvious, how would it be possible for one skilled in the art to find the present claims obvious from the irrelevant references being applied?

Note, quite conspicuously, that in the second office action dated 7/14/05, the examiner failed to place his initials on the reference AR listing, which specifically lists the five photos of the conventional rectangular fixture

PATENT
Docket GE131915

now being applied by the examiner as AAPA.

A paper entitled Defective Office Action was promptly filed to address this apparent oversight by the examiner.

The examiner did not respond to that paper, so this attorney called the examiner on 7 Sep 2005 to personally bring the matter to his attention.

In response, the examiner prepared another office action dated 09/07/2005 and sent a copy thereof by fax to this attorney.

In that paper, the examiner expressly states that "Attached is a 1449 with the AR reference initialed." "The AR reference has been considered and does not change the rejection."

"Does not change the rejection" the examiner stated, this after having at least twice evaluated the merits of that reference AR under the thoroughness standard of Rule 104.

And, under that thorough review of reference AR the examiner failed to apply that reference in the last office action as being irrelevant or not a best reference.

But now, having withdrawn the previous rejection for lack of merit, the examiner is forced to fabricate yet another rejection, without regard to the requisite whole analysis of the claims being rejected, without regard to the whole of the references being applied, including reference AR, and without regard to the applicable MPEP provisions.

The examiner's earlier considered decision not to apply reference AR due to its lack of teaching, is now bolstered by the previous restriction requirement presented in the first office action dated 04/26/2005.

It is the examiner who first presented the restriction requirement, which has now been made final, in which the examiner holds that not only are the apparatus and method claims patentably distinct inventions, but they are drawn to materially different subjects, which would have different search classifications,

PATENT
Docket GE131915

The examiner has updated his search for the present office action in a belated attempt to uncover any reference from any class which might contain specific features recited in the claims.

This is clearly evident of the power of modern computer searching without regard to the classification system in the PTO, in which clearly nonanalogous references have been found, and continue to be applied without regard to applicable case law.

The scope of the prior art may be determined from applying *In re Wood and Eversole*, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA, 1979):

The determination that a reference is from a nonanalogous art is therefore twofold. First, we decide if the reference is within the field of the inventor's endeavor. If it is not, we proceed to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved.

The applicability of *Ferrigno* was addressed in the last response.

Holderegger is clearly nonanalogous art, and the examiner has not shown otherwise in the continued rush to reject the claims without identifying those claims in particular or meeting the stringent requirements of the MPEP.

Applicants' field of endeavor is laser shock peening as expressly stated in para. 1, for example, as previously emphasized. The examiner has not traversed this.

Holderegger expressly states at col. 1 that "The invention relates to an apparatus for screen printing," which is clearly not the same field of endeavor as laser shock peening, nor is it in a related search class.

Applicants' stated problems include the alignment of opposing laser beams for laser shock peening.

Col. 1 of *Holderegger* discloses quite different problems

PATENT
Docket GE131915

including the small printing limitation and screen deformation. Clearly these problems are neither related to Applicants' express problems, or to any problems in the other references which the examiner now attempts to apply.

Holderegger is therefore nonanalogous art, and the examiner cannot show otherwise.

The field of endeavor in Steinwall is "machining operation" having no relevancy to laser shock peening, and is found in a different search class.

The problem in Steinwall is the need for a "quick-change vise jaw... to hold an odd shaped work piece," yet again, having no relevancy to Applicants' problems of laser alignment.

Steinwall is therefore nonanalogous art, and the examiner cannot show otherwise.

Not only are these references nonanalogous by art, but they are quite irrelevant in subject matter to ref. AR and Ferrigno also being combined therewith. The examiner's mere conjecture of obviousness does not make it so.

Laser shock peening is highly esoteric and sophisticated, and the examiner's continued failure to uncover even remotely relevant references specific thereto is quite obvious. Without relevant evidence, the examiner is forced to offer mere conjecture and bald generalizations.

MPEP 706.02(j) provides the basic requirements which must be provided by the examiner in establishing prima facie obviousness under 35 U.S.C. 103. Four steps are required of the examiner including:

(A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate,

(B) the difference or differences in the claim over the applied reference(s),

(C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject

PATENT
Docket GE131915

matter, and

(D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

To establish a prima facie case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

Citing Ex Parte Clapp, the MPEP places the burden of proof on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references."

It is the examiner who must meet this initial burden by applying specific evidence; and clearly the examiner has not met this burden with the unsupported conclusions of obviousness or well known, which fail to meet the stringent "legal motivation" requirements of MPEP ch. 2100.

Claim 11 recites a laser target 26 comprising:

a shank 28 having an integral first wedge 30 converging from a step 34 to a distal end of said wedge;

a complementary second wedge 32 fixedly mounted on said

PATENT
Docket GE131915

step 34 and converging with said first wedge; and
said first and second wedges 30,32 having respective target apertures 38 aligned with each other transversely therethrough.

The examiner has failed to explain what AAPA he is intending to apply from the background section and from ref. AR. The examiner is clearly selectively using the Background section, without regard to the problems therein, or the associated teachings.

To be specific, the Background presents at paras. 8-13 the conventional alignment fixture "in the form of a rectangular beam...." That rectangular fixture is shown in various orientations in ref. AR to complement the Background description, and bring this old fixture to the attention of the examiner.

Yet, the examiner having thoroughly examined the specification, and ref. AR first found such conventional practice to not be worthy of any comment, or use in the previous office action. Why?

Why, because that old fixture has a specific rectangular configuration for original use in aligning opposite laser beams 180 degrees apart for single airfoils as disclosed at para. 8.

Para. 14 introduces the additional complexity of the blisk workpiece, and the problems associated with the use of the old fixture in aligning laser beams.

Paras. 15-19 further describe a modified use of the old fixture for the blisk-alignment application, which introduces additional problems resulting in the expenditure of half a day to perform the alignment procedure.

Claim 11 reproduced above recites a significantly different configuration of the laser target, for which the examiner has afforded no weight whatsoever, let alone due weight, with the examiner merely opining that the group of claims 1-6, 11-17, and 19-21 would have been obvious as based

PATENT
Docket GE131915

in part on well known features.

Well, it is quite fundamental that most inventions are formed of quite common and well known elements, which, alone, does not make most inventions obvious as the examiner's bald contentions would require.

MPEP ch. 2100 presents much guidance on the stringent requirements to support Section 103 rejections, not on mere examiner argument or conjecture, but on identified evidence and identified combinations, lacking wholly in the examiner's cursory remarks.

Let us start with the old rectangular fixture shown in ref. AR.

So, how should one skilled in the art proceed to modify that fixture in any way, let alone in the manner now recited in Applicants' claims?

Why would one skilled in the art modify that old fixture?

That fixture works quite well as presently designed for single airfoils, but not for the specific blisk problem presented by the present Applicants.

Note, also that the present Applicants have also presented one way to modify the old fixture for use with blisks, but that one way also has problems.

Perhaps, there would be many, many ways to modify that old fixture; but the examiner has the considerable burden to show how and why one skilled in the art would have modified that old fixture, if at all. This, the examiner has not done in his cursory remarks, based on mere examiner conjecture devoid of evidence and devoid of analysis.

The inapplicability of the Ferrigno reference was presented in the last amendment, yet not traversed by the examiner, but, instead, the examiner withdrew the rejection for lack of merit.

Although Ferrigno discloses a laser shock peening apparatus, it is silent on any problems or solutions or

PATENT
Docket GE131915

alignment fixtures which would be in any way relevant to the present claims or Background section or ref. AR or the other references being applied by the examiner.

Note at the top of page 3 of the office action that the examiner applies Ferrigno solely for simultaneous laser processing, which is clearly irrelevant to any initial alignment process not taught therein.

The examiner attempts to support a rejection, not with evidence, not with explanation, but with mere conjecture; leaving to the Applicants to speculate on what possibly the examiner intends. The unexplained intention of the examiner is clearly not "clear and convincing."

The examiner attempts to apply Holderegger for "Angled or tapered clamps are well known." So, what is the relevance of this to any one of the claims? And, what does one skilled in the art do with any feature in Holderegger?

Of course, angled or tapered clamps might well be known, but a Section 103 rejection requires more. It requires analysis and evidence and proposed combinations and legal motivation, all lacking in the examiner's mere conclusion of obvious from four different references somehow thrown together in one pot from which springs the specific form of the new laser target found in the various claims.

Where does any of the claims recite a "clamp?"

Where does any claim recite clamping a workpiece in any manner relevant to the references being applied?

The examiner clearly is not interpreting the claims for what they in fact recite, but the examiner loosely generalizes the claims and the features therein in an attempt to force-fit the applied references thereto. This, too, is conspicuous.

Without regard to the specific teachings of Holderegger, the examiner simply opines that "the taper allows for simulation of actual laser processing such as disclosed by Ferrigno et al." What does this mean? And, how is it

PATENT
Docket GE131915

relevant to the other references being combined, and to which of the many claims being rejected?

Where is this statement disclosed or taught in any of the references? The examiner's statement is a clear hindsight fabrication having no evidentiary basis in any reference.

Holderegger relates to screen printing, and how is that related to any "simulation" in Ferrigno as the examiner proposes? Where is any logic in that?

What does Holderegger disclose and teach?

Look at the multitude of figures 1-13 in Holderegger, and how, possibly, are any of those figures relevant to Ferrigno, or the other references being applied by the examiner?

What should one skilled in the art take from Holderegger, and what should he leave?

Figures 4 & 5 of Holderegger show specific forms of clamps 9,11 for clamping the edge of a stiffening profile 2, as shown in Figures 1, 2, and 6.

In claims 1 & 11 the laser target 26 includes the first wedge 30 on the shank 28 converging from the step 34 in a combination clearly not disclosed or suggested by Holderegger.

These claims also recite the complementary second wedge 32 mounted on the step and converging with the first wedge in a combination clearly not disclosed or suggested by Holderegger.

And, these claims also recite respective target apertures 38 in the two wedges, again having no counterpart in Holderegger.

No, the examiner has not recognized these fundamental differences, he has even overlooked them in the rush to reject since he is blinded by the well known use of "Angled or tapered clamps," which despite the specific configuration thereof taught by Holderegger, is clearly insufficient to

PATENT
Docket GE131915

meet the features expressly recited in the claims.

It is a fundamental tenant of patent law that each and every feature in each and every claim must be evaluated for what it is, how it functions, and how it cooperates in the whole. This the examiner clearly has not done in his cursory remarks, and his failure to identify or afford any weight to the multiple features recited in the claim. Instead, the examiner refers generally to only some features, like "clamps" not recited in the claims, to the exclusion of other features expressly recited in the claims.

Claims 1, 12, & 13 further recite the respective seats 40 and external faces 44 in which the target apertures are mounted flush.

The examiner appears to use Steinwall for "Clamps having indents or seats," yet the teachings of Steinwall are so grossly different than any of the other applied references that there can be no rationale basis to combine them in any manner, let alone the specific manners recited in these claims.

To this, the examiner simply argues that Steinwall renders obvious such unexplained features "depending on a known work piece shape," yet this has no logic at all, and disregards the fundamentally different nature of the four disparate references being applied, and is not supported by any identified tenant of case law or the MPEP, see, for example, MPEP 2144.04.

The examiner's attempt to use general legal principles fails fundamentally to comply with any provision of identified case law or MPEP section.

MPEP ch. 2100 contains a significant body of case law, and that case law requires stringent analysis, and a stringent showing of facts before any of that case law can be applied.

The examiner's loose and misdirected contentions of obviousness present a subjective standard of patentability

PATENT
Docket GE131915

that no patent could ever pass.

The examiner has clearly failed to comply with MPEP 706.02(j) in addressing each feature of each claim; and must necessarily overlook express claim features in the cursory remarks presented on page 3 of the office action, because the requisite analysis is not only difficult under the facts of the present claims, but virtually impossible based on the four disparate references which the examiner attempts to apply.

Recall, that neither Holderegger nor Steinwall are analogous art, not only because they lack relevance to laser shock peening or laser targets or laser alignment or Applicants' problems, but also because they lack any relevant structure and teachings which might even be applied to laser targets.

The typical hardware store would most likely contain 1000's of hardware elements of well known design and well known use, and the present examiner would present to us the notion that the present claims would have been obvious for the sole reason that he has applied multiple references, without regard to the relevancy thereof, and since certain elements are well known, then any combination thereof would be obvious, per se, such as selecting common nuts and bolts from the hardware store.

This does not represent modern patent law as well documented in the MPEP, which the examiner has failed to follow.

The examiner's use of Steinwall is particularly determinative of the failure to comply with the MPEP. "Clamps having indents or seats" are well known the examiner contends, citing Steinwall.

But, what does Steinwall disclose? And, what does Steinwall suggest?

Figures 1 & 2 show the common machinist's clamp or vise, referred to in Steinwall as the quick change jaw system 20.

PATENT
Docket GE131915

Even the most cursory review of those two figures should support even to the novice examiner that there is no relevance between the features thereof and any of the applied references. None.

Indeed, figure 1 of Steinwall shows a remarkably complex and huge mechanism with rectangular blocks and notches and grooves and other complex and irregular features. How would it even be possible to combine this complex "clamp" with the different "clamp" of Holderegger in any manner relevant to the simply streamlined laser target recited in Applicants' claims and illustrated in the figures?

Would not the complex clamp of Steinwall and the equally complex clamp of Holderegger be impossible to mount between airfoils in the blisk having the very problem being solved by the Applicants?

Figures 4 & 5 of Holderegger show another form of clamp having no similarity whatsoever with figures 1 & 2 of Steinwall.

Ferrigno lacks any figure or teaching on laser targets.

And, ref. AR shows the old rectangular laser target, over which the present invention is a significant improvement.

Yet, that rectangular laser target is a custom made, custom configured, and custom used device having no technical or logical nexus with any one of Ferrigno, Steinwall, or Holderegger, and the examiner has not shown otherwise.

Instead, the examiner must rely on mere generalizations as found on page 3, and mere generalizations do not support an obviousness rejection under Section 103.

Indeed, for example only, claim 1 additionally recites that the target apertures 38 are mounted flush in the external faces 44; a feature for which the examiner has provided no weight.

In ref. AR the apertures are recessed in the external surfaces.

PATENT
Docket GE131915

In Ferrigno, no laser target is shown at all.

In Holderegger, there are no relevant target apertures.

And, in Steinwall the "well known ... indentations or seats" conspicuously lack any target apertures or relevant flush feature.

Claims 1 and 14 also recite that the target apertures 38 are oval, with claim 14 adding that the corresponding major axes are normal with the shank step 34.

The oval feature the examiner simply opines is a mere "change in shape for suitable access for an angled beam." However, this is mere conjecture, unsupported by any evidence, or MPEP provision, or case law, and is simply not permitted under modern patent law.

Claims 1 & 14 do not simply recite an oval aperture, but one in a special combination in a laser target for special function, and corresponding benefits.

To the examiner, holes are holes, and are due no weight as being mere changes in shape.

But, under modern patent law holes must be evaluated in the whole, and, indeed, are due fair consideration and due weight.

For example only, the examiner may take Judicial Notice that the gas turbine engine art is extremely crowded in cooling configurations for turbine blades, which blades have many, many, many holes, which holes indeed have resulted in the issuance by the PTO of myriad patents.

Holes are, indeed, quite patentable, and are not mere change in shape. The case law for change in shape is quite specific, and requires a factual prerequisite which the present examiner has failed to meet, and cannot meet, in his continued rush to reject the claims.

Clearly, the examiner has not been able to uncover a reference for an oval aperture; and just as clear none of the four references being applied has any relevant structure or teaching in this regard.

PATENT
Docket GE131915

This, then, requires the examiner to simply contend that the feature in its combination would have been obvious, in a conspicuous compounding of error after error.

Not one claim has the examiner allowed. Not one.

Why?

The differences between the present claimed invention and ref. AR and the other references of record could not be any greater. Yet the examiner repeatedly refuses to allow any claim, based on the mere examiner conjecture of "well known" features, naked features, and therefore "obvious" to one skilled in the art, which person would not have the examiner's experience in patent law in fabricating rejections, yet even with that experience the present rejections are without merit.

Claim 2 recites that the aligned target apertures 38 decrease in depth between the shank step 34 and the apex of the wedges 30,32 for the advantages presented in the specification, which combination lacks any evidentiary basis in any of the applied references, and the examiner has not shown otherwise.

The examiner's simple contention that "change in depth of an aperture would have been obvious ... as inherent in a tapered apertured clamp" is bald conjecture having no evidentiary basis in any applied reference, and no identified basis under the MPEP or case law.

The whole analysis requires more, and the examiner has simply failed to meet that requisite analysis, instead choosing the rote expedient of conjecture, without legal support.

Claims 3 and 15 recite that the seats 40 include respective recesses 46 aligned with each other around the target apertures to define a pocket for receiving the target sheet 42, in yet another combination lacking any evidentiary basis in any of the applied references, and the examiner has not shown otherwise.

PATENT
Docket GE131915

Claims 4 and 16 recite that the recesses 46 have equal depths for aligning the mating plane of two target sheets 42 with the mating plane of the first and second wedges 30,32, for the advantages presented in the specification, which combination yet again lacks any evidentiary basis in any of the applied references, and the examiner has not shown otherwise.

Indeed, the examiner's sole contention regarding "change in depth" applies only to the apertures of claim 2, and the depths recited in claims 4 & 16 being afforded no weight by the examiner in the rush to reject.

Claims 5 and 19 introduce a base plate 36 fixedly joined to a proximal end of the shank 38. Neither Ferrigno, nor Holderegger, nor Steinwall disclose or suggest any relevant feature, and ref. AR lacks any nexus with these references for combination therewith, and the examiner has overlooked these claims.

Claims 6 and 14 recite that the oval target apertures 38 include corresponding major axes being normal with the shank step 34, in a configuration having no relevancy with the four applied references, and the examiner has not shown otherwise.

The examiner's sole contention of "change in shape" is without legal support, and fails to afford any weight to the specific orientation of the oval apertures recited in these claims.

Claim 17 recites that the second wedge 32 is removably joined to the first wedge 30 by a bolt 48 extending therethrough between the target aperture 38 and the shank 28.

This claim, the examiner has overlooked in the rush to reject. Neither Ferrigno, nor Holderegger, nor Steinwall disclose or suggest any bolted wedge configuration, and ref. AR lacks any corresponding teaching or suggestion.

Perhaps the examiner's rejection is based on the equally simplistic contention that bolts are well known, and therefore all uses of all bolts would have been obvious.

PATENT
Docket GE131915

Yet, this is not permitted in modern patent law, nor has the examiner properly supported any rejection of this claim.

Claim 20 recites the target in a combination apparatus with a computer numerically controlled multiaxis manipulator 10 having a supporting bracket 12 at a distal end thereof fixedly joined to the target base plate 36.

For this claim, the examiner simplistically argues that "Ferrigno et al describe computer control and adjustable optics."

But, what does this have to do with the combination expressly recited in claim 20?

Where is any manipulator disclosed in Ferrigno?

The structure in Ferrigno is clearly different than that recited in claim 20, even a cursory review of Applicants' figure 1 and figure 7 of Ferrigno will show this.

There is no manipulator in Steinwall to which any laser target could be attached, and the examiner has not shown otherwise.

The examiner further contends that "The intended use of a computer for particular control does not impart patentability to the apparatus claims." What computer is recited in claim 20?

And, where is the MPEP or case law support for that mere examiner argument?

To the contrary, the MPEP has many sections specifically dealing with computer implemented inventions, and indeed, the computer implementation in an invention "does ... impart patentability to ... apparatus claims."

The examiner has been confused by the "computer" term recited in claim 20, without regard to the whole of that claim.

Claim 20 does not simply recite a computer, per se; but a CNC multiaxis manipulator 10, which is structure, and, indeed, a highly complex and sophisticated machine also well known in the relevant art. That machine has a supporting

PATENT
Docket: GE131915

bracket 12 fixedly joined to the laser target base plate 36, which is yet even more structure overlooked by the examiner as mere "intended use."

Where is such structure and such combination disclosed or suggested in the four references?

Claim 21 further introduces a laser 20; adjustable optics 22 disposed in optical alignment with the laser for directing two converging laser beams 24 therefrom; and that the manipulator 10 is programmed for positioning said target apertures 38 in alignment with respective ones of said two laser beams.

Yet again, the examiner's use of Ferrigno is irrelevant since that reference lacks corresponding structure; and the examiner's contention of intended use misapplies the many MPEP provisions on computer implemented inventions.

Claim 21 is a combination claim of structure having disclosed functional capability for which the examiner has clearly failed to afford any weight in his bald contention of "intended use."

Clearly, it is the expedient thing for the examiner to simply argue well known features and obvious to combine, etc., as the present examiner has continually done; but this is not permitted by the MPEP and case law, and the examiner's failure to provide specific evidence, apply that specific evidence to each and every claim in each and every combination thereof is conspicuous.

The requirements of MPEP 706.02(j) and ch. 2100 are intentionally stringent for the very reason of preventing examiners, like the present examiner, from merely arguing the obviousness of claims, as the present examiner continues to do, without evaluating claims in the whole, and the references in the whole.

There can be no doubt that the recited laser target is a distinct improvement over the old laser target; and this is clearly evident over the disparate references uncovered and

PATENT
Docket GE131915

applied by the examiner.

Legal obviousness is not supported by the apparent simplicity of the recited laser target; and the examiner's far-reaching searching of disparate search classes is evidence of the non-obviousness of the laser target, especially in view of the considerable experience of the examiner in fabricating rejections under Section 103, which are wholly unsupported over the presently applied references.

Holderegger clearly fails to disclose or suggest any laser target, or features useful therein.

Ferrigno clearly fails to disclose or suggest any laser target at all.

And, Steinwall also clearly fails to disclose or suggest any laser target at all.

The old rectangular laser target shown in ref. AR includes the very problems being solved by the new laser target specifically recited in the claims.

The examiner originally evaluated ref. AR under the Rule 104 thoroughness standard, and found that reference lacking as a basis to reject the claims.

But now, the examiner in a conspicuous attempt to force-fit together disparate references must necessarily disregard the express requirements of the MPEP, and instead rely on subjective conjecture without identified evidence and without identified legal motivation.

Without Applicants' claims and disclosure as the guide, the examiner, and one skilled in the art, would have no idea of which features to select from which reference, which features to disregard, and how to combine them, or why.

It quite clear that the examiner must use Applicants' own claims and own disclosure to bootstrap the rejections from disparate references which no person skilled in the art could possibly combine in any manner, let alone any manner relevant to the present claims.

Accordingly, withdrawal of the omnibus rejection of

PATENT
Docket GE131915

claims 1-6, 11-17, and 19-21 under Section 103(a) over AAPA, Holderegger et al, Ferrigno et al, and Steinwall is warranted and is requested.

Applicants traverse the rejection of claims 7-10 and 18 under Section 103(a) over AAPA, Holderegger et al, Ferrigno et al, Steinwall, and McLaren.

The examiner's need to apply a fifth, irrelevant reference to the previous list of four is evidence in and of itself of the nonobviousness of these claims.

Firstly, neither Holderegger nor Steinwall are analogous art as presented above.

And, McLaren also is nonanalogous art.

McLaren expressly states that the field of endeavor is "radiology," having no relevance with laser shock peening, and the examiner has not shown otherwise.

To be certain, the field of radiology would be just as esoteric and complex as the field of laser shock peening; and those two fields would most certainly be under different subject and search classifications under the USPTO, since they are quite fundamentally different from each other.

However, modern computer searching in the USPTO does not distinguish this difference; that is up to the experience and judgment of the examiner to determine, within the applicable rules of common examination practice.

This examiner has failed to afford any weight to those differences, or to the applicable rules on nonanalogous art in the rush to uncover references wherever that might be found, and combining them for any reason in the hindsight fabrication of rejections.

The problem in McLaren is the detection of a foreign body in the human eye, which, quite plainly, has no relevance to the alignment of laser targets, nor has the examiner shown otherwise.

Instead, the examiner has used the powerful computer searching techniques of the PTO to uncover a reference, any

PATENT
Docket GE131915

reference, which includes crosshairs; and, now, with the distinct advantage of hindsight simply contends that their use "with the AAPA clamp would have been obvious ... because they provide quick alignment."

Yet, this the examiner opines without recognizing that McLaren is nonanalogous art, and that none of the claims being rejected recites a "clamp" as that device is notoriously well known, even to the examiner based on the references he has uncovered.

Claims 7 and 18 recite that each of the faces 44 includes a respective crosshair 50 around the target aperture 38 for centering a laser beam therein; yet there are no apertures disclosed in McLaren around which the crosshairs are located.

Of course, the examiner could also find more references using crosshairs, such as in hunting gun telescopic sights. Yet, the mere recognition that crosshairs themselves are notoriously well known is not sufficient under the MPEP which requires much more in supporting rejections under Section 103.

The examiner overlooks that the "AAPA clamp" illustrated in the rectangular embodiment shown in ref. AR does not need or have crosshairs therein.

The target aperture is itself a target which allows "quick alignment" of the laser beams.

What problem is the examiner solving with the crosshairs of McLaren?

Why add a superfluous feature to the "AAPA clamp" when it would have no value? "Quick[er] alignment," perhaps?

Why not then add two sets of crosshairs to make the alignment even quicker?

Anyone can simply argue that conventional features could be incorporated into any device for the associated performance thereof, as the examiner now argues, but a Section 103 rejection requires more, which the examiner has

PATENT
Docket GE131915

failed to provide.

Furthermore, in the rush to reject claims 7-10 and 18, the examiner has conspicuously overlooked the other features recited therein, notwithstanding the crosshairs.

Claim 8 recites that the second wedge 32 is removably joined to the first wedge 30 by a pair of bolts 48 extending therethrough between the target aperture 38 and the shank 28.

There is no analogous structure in McLaren, nor in Holderegger, nor in Steinwall, nor in Ferrigno, nor in ref. AR; yet the examiner has overlooked this claim, perhaps because one bolt or two bolts or a myriad of bolts would be well known?

Applicants need not speculate as to the examiner's basis for rejection; the MPEP requires otherwise. The examiner's failure to support this and the other rejections simply makes them void ab initio for want of evidence and want of analysis and want of legal basis under Section 103.

Claim 9 introduces a pair of the target sheets 42 mounted in the recesses 46 between the first and second wedges 30,32, in a combination, yet again, overlooked by the examiner in the rush to reject each and every claim.

No such target sheets are disclosed or suggested in McLaren, or in Holderegger, or in Steinwall, or in Ferrigno.

And, although ref. AR would indeed use target sheets, they are and would be used quite differently as the examiner will recognize upon examining the entirety of the "AAPA" which he cites in the Background section of the present application.

At best, McLaren, Holderegger, Steinwall, and Ferrigno all teach away from the use of any target sheet whatsoever, let alone two target sheets, since those references disclose structures not only different from each other, but different from ref. AR.

It is only the present examiner, with the considerable advantage of hindsight, and with Applicants' specification and claims as the guide who has the present ability to

PATENT
Docket GE131915

surgically find the disparate references in disparate search classes, and surgically dissect those disparate references to uncover only general features and general teachings thereof to the exclusion of the specific features and specific teachings thereof, and without regard to the whole of those references or the whole of each and every claim now being rejected.

Clearly, this type of examination practice does not support rejections under Section 103. The MPEP is clear in its requirement for evidence, and its requirement to explain how and why one skilled in the art would have found obvious the specific combination of features presented in Applicants' claims.

Claim 10, like claim 20, recites a target in combination with a computer numerically controlled multiaxis manipulator 10 having a supporting bracket 12 at a distal end thereof fixedly joined to the target base plate 36.

The examiner has failed to present any reason to reject claim 10 at page 4 of the office action, and his contentions made regarding claim 20 would be equally defective if applied to claim 10.

Accordingly, withdrawal of the rejection of claims 7-10 and 18 under Section 103(a) over AAPA, Holderegger et al, Ferrigno et al, Steinwall, and McLaren is warranted and is requested.

Yet again, quite controlling in the present prosecution is the examiner's initial evaluation, at least twice, of the very ref. AR cited by the present Applicants themselves as evidence of the old rectangular laser target, yet that reference was not considered by the examiner for any basis to reject the claims, and certainly not considered by the examiner as being the best reference available.

The failure of the examiner to fabricate even a prima facie rejection in the previous office action is also conspicuous since the rejections therein have been withdrawn,

PATENT
Docket GE131915

without the least recognition of the lack of merit thereof, except that "Applicant's arguments ... are moot"

Yet, those arguments are not moot since they show the previous failure by the examiner to provide the requisite evidence and the requisite legal basis to reject the claims.

Those failures continue in the present office action, and are made even more conspicuous because the examiner has been challenged on the requirements of the MPEP, and continues to disregard those requirements.

MPEP 706.02(j) has been presented above, and it is not seen how the examiner's rejections presented in the last office action or the present office action meet those requirements for specificity, evidence, and the clear and convincing showing mandated therein.

The examiner's contentions are conspicuous for the failure to identify each and every claim listed, and the different features recited therein, and the failure to present the requisite analysis therefor. Mere examiner generalizations and conjecture based on well known features, neither supported by evidence nor case law nor the MPEP, do not meet the stringent requirements of Section 103.

In accordance with the duty imposed by 37 CFR 1.104 and MPEP sections 707, 707.05, 707.07, and 707.07(g), the examiner is requested to reconsider all the art of record, including the additional references not applied, to ensure full compliance with the required thoroughness of examination; now including a third complete evaluation.

In re Portola Packaging, Inc., 42 USPQ2d 1295 (Fed. Cir. 1997) emphasizes the importance of complying with this duty to ensure that all references of record have been fully considered by the examiner in the various combinations thereof. And, the Board of Appeals has further elaborated on the importance of this examiner duty in Ex parte Schricker, 56 USPQ2d 1723 (B.P.A.I. 2000).

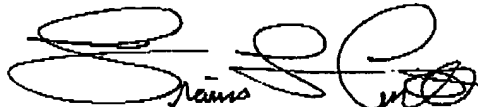
In view of the above remarks, allowance of all claims 1-

PATENT
Docket: GE131915

21 over the art of record is warranted and is requested.

And, rejoinder and full examination of dependent method
claims 22-24 is also warranted and is requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Francis L. Conte', is written over a horizontal line.

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